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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/614,320	07/03/2003	Randal L. Shuman	4878-1	7351
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EXAMINER				
BECKER, DREW E				
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1794				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/614,320

Applicant(s)

SHUMAN ET AL.

Examiner

Drew E. Becker

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Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-67 is/are pending in the application.
- 4a) Of the above claim(s) 33-41, 44-52 and 61-66 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32, 42-43, 53-60, 67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/23/08 has been entered.

Election/Restrictions

2. Claims 33-41, 44-52, and 61-66 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group or species, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-32, 42-43, 53-60, and 67 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the

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application was filed, had possession of the claimed invention. Applicant failed to point out where all of the new limitations filed on 5/23/08 and 4/10/07 are supported by the application. Due to the large size of applicants disclosure (85 pages in the specification alone), the examiner was unable to find support for the above limitations.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 3 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claims 3 and 5 recite the limitation "the water sprays". There is insufficient antecedent basis for this limitation in the claims. Also, it is not clear whether the "water sprays" are part of the claimed invention, or simply a capability of the device.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1, 6-10, 12-15, 18-20, 22-29, 31-32, 53-55, 59, and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newman [Pat. No. 5,597,597] in view of Eckhardt et al [US 2002/0168287] and Fakieh [Pat. No. 5,910,332].

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Newman teaches a device comprising a drum transport (Figure 10, #242), an entry conveyor (Figure 10, #246), an exit conveyor (Figure 10, #256), germicidal emitters (Figure 10, #18), inherently detachable and replaceable spiral tumblers with recesses between them (Figure 9, #254), the drum having a decline (column 8, line 15), a motor and belt (column 8, line 9), the emitters radiating UVC radiation which was capable of surface sterilizing food at -40°F (column 5, line 28), a containment sleeve (Figure 10, #20), entry and exit shrouds (Figure 3, #116), the UVC radiation not affecting the food's surface temperature or eating characteristics, and a lack of chemicals and breakage. Phrases such as "said food product includes one of:" and "shrink wrapped" are merely preferred methods of using and making the claimed apparatus. Newman does not recite an assembly for the emitters which is within the interior of the transport, the assembly including electrical components for activating the emitter, and a support for the assembly which is capable of being moved into and out of the interior. Eckhardt et al teach a device comprising a rotating drum transport (Figure 1, #3), UV emitters within the drum (Figure 1, #5; paragraph 0018), an assembly with electrical components for activating the emitter (paragraph 0021), the drum being polygonal (paragraph 0017), and a light-tight enclosure (paragraph 0021). Fakieh teaches a device comprising an emitter which is located within a rotatable drum (Figure 1, #12 & 50), an assembly for the emitters which movable between two positions (Figure 1, #14), and a support for the assembly (Figure 1, #56). It would have been obvious to one of ordinary skill in the art to incorporate the interior emitters and electrical components of Eckhardt et al into the invention of Newman since both are directed to devices for emitting UV radiation, since

Newman already included emitters within the chamber, since Newman inherently required some sort of controller even though none was explicitly described, since the electrical components of Eckhardt et al provided the safety function of enabling and disabling the emitters based on whether the chamber was closed (paragraph 0021), and since the emitter within the drum configuration of Eckhardt et al would have better ensured complete treatment of the material. It would have been obvious to one of ordinary skill in the art to incorporate the movable assembly and support of Fakieh into the invention of Newman, in view of Eckhardt et al, since all are directed to radiation emitter devices, since Newman already taught removing the transport for cleaning and repair (column 6, lines 56-63), since Eckhardt et al already taught an emitter within the drum (Figure 1, #5), and since the assembly and support of Fakieh provided a convenient and simple means for removing a central emitter located within a rotatable drum (Figure 1) for easier maintenance and substitution.

8. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Newman, in view of Eckhardt et al and Fakieh, as applied above, and further in view of Frazier et al [Food Microbiology 4th Edition].

Newman, Eckhardt et al, and Fakieh teach the above mentioned components. Newman, Eckhardt et al, and Fakieh do not specifically recite the emitters being capable of withstanding water sprays of 1,250 psi and 195°F. Frazier et al teach common means for cleaning food processing equipment such as pressurized water at 300-1,000 psi (page 487, line 3) and the use of steam jets (page 487, 2nd full paragraph) which inherently had a temperature of at least 210°F. It would have been obvious to one of

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ordinary skill in the art to make the device of Newman, in view of Eckhardt et al, Fakieh, and Frazier et al, capable of withstanding water sprays of 1,250 psi and 195°F since all are directed to food processing equipment, since food processing facilities were commonly cleaned with high pressure water and high temperature steam jets as shown by Frazier et al, and since designing the equipment of Newman to withstand at least the common cleaning methods of Frazier et al would have been done during the course of normal design procedures in order to reduce the chance of equipment failures due to commonly used high temperature and pressure cleaning steps.

9. Claims 11, 16-17, 21, 30, 42-43, 56-58, and 60 are rejected under 35

U.S.C. 103(a) as being unpatentable over Newman, in view of Eckhardt et al and

Fakieh, as applied above, and further in view of Welt et al [Pat. No. 5,40,382].

Newman, Eckhardt et al, and Fakieh teach the above mentioned components. Newman, Eckhardt et al, and Fakieh do not recite an electronic controller for the declination, a controller for the rotational speed of the drum, a controller for varying the amount of germicidal emitted, baffle sensors with a controller, a weight sensor, a depth sensor, blockage sensors, and . Welt et al teach an irradiation device comprising a controller for product dwell time, product speed, the amount of radiation applied, the amount of product which enters and exits, as well as manual input and automatic settings (column 6, lines 15-20 & 58-61; column 9, line 51 to column 16, line 50). It would have been obvious to one of ordinary skill in the art to incorporate the controller of Welt et al into the invention of Newman, in view of Eckhardt et al and Fakieh, since all are directed to irradiation devices, since Newman inherently required some sort of controller even

though none was explicitly described, and since the controller of Welt et al provided a reliable and accurate means for monitoring, tracking, and controlling the device Newman. It would have been obvious to one of ordinary skill in the art to automate such conventional manual activities such as monitoring the amounts of material to be treated, ensuring that the device is closed, and monitoring operations in order to observe blockages since this would have been done during the course of normal operating procedures, since monitoring the amount of material would ensure that the device is not overloaded and that all of the material is treated to a sufficient degree, since detecting blockages would have prevented waste of material and lost time due to clean-up, and since manually ensuring the proper configuration for the device would have prevented accidents and other mishaps. Regarding automating of manual activities, MPEP 2144.04 states: In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent- mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.).

Response to Arguments

10. Applicant's arguments with respect to claims 1-32, 42-43, 53-60, and 67 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In response to applicant's argument based upon the age of the references, contentions that the reference patents are old are not impressive absent a showing that the art tried and failed to solve the same problem notwithstanding its presumed knowledge of the references. See *In re Wright*, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).

In response to applicant's argument that Newman, Eckhardt et al, Fakieh, and Welt et al are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, all of the references are directed to devices for applying radiation of food products.

In response to applicant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991).

Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Drew E. Becker whose telephone number is 571-272-1396. The examiner can normally be reached on Mon.-Fri. 8am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Drew E Becker/
Primary Examiner, Art Unit 1794